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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,242

06/16/2006

Minoru Kuroda

5404/154

8253

757 7590 09/18/2008
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EXAMINER

JUSKA, CHERYL ANN

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

09/18/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/583,242	KURODA ET AL.	
	Examiner	Art Unit	
	Cheryl Juska	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/06, 10/06, 11/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-3 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 1 is rejected as indefinite because it is unclear what constitutes the step pile fabric. Note the claim only recites a down hair pile component made from a shrinkable fiber. Claims 2, 3, and 5 are rejected for their dependency upon claim 1.

4. Claim 1 recites the limitation “the down hair component” in lines 7 and 8 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being obvious over US 2004/0185222 issued to Kuroda et al. in view of JP 2003-253574 issued to Tokumoto et al.

The applied Kuroda reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Kuroda discloses a step pile fabric comprising an acrylic fiber having a dry heat shrinkage rate of 10-50% (abstract and sections [0005] and [0009]). Specifically, the dry heat shrinkage rate is measured by the same formula recited by applicant in claim 1 (sections [0037] and [0038]). The shrinkable acrylic fiber comprises a copolymer comprised of (a) 35-98 wt.% of acrylonitrile, (b) 2-65 wt.% of a vinyl monomer, and (c) 0-10 wt.% of a sulfonic acid group-containing vinyl monomer (section [0056]). The pile fabric is made by blending the shrinkable acrylic fiber with a non-shrinkable fiber to form a sliver and formed into a pile fabric (sections [0078], [0079], and [0096]). Said pile fabric is then heat treated to shrink the shrinkable fiber, thereby forming the step pile fabric (section [0079]).

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Thus, Kuroda teaches the invention of claims 1, 2, 4, and 6 with the exception that the acrylic shrinkable fiber is dyed with a cationic dye at 55-85°C and heat treated with dry heat at 110-150°C for 20 minutes or less. However, it would have been obvious to dye said fiber as claimed since said method of dyeing is known in the art of acrylic fibers. For example, Tokumoto discloses a method of dyeing shrinkable acrylic fibers employed for synthetic fur pile fabrics (abstract). Specifically, the dyeing method includes dyeing the fiber with a cationic dye at a temperature of 70°C or less and then heat treating the fiber with dry heat at a temperature of at least 120°C (abstract). Hence, it would have been obvious to one skilled in the art to dye the shrinkable fiber according to Kuroda with the dyeing method of Tokumoto. motivation to do so would be the advantages of the Tokumoto dyeing methods, such as shortened dyeing time and reduced cost without adverse effects on the quality of the fabric. Therefore, claims 1, 2, 4, and 6 are rejected as being obvious over the cited prior art.

Regarding claims 3, 5, and 7, said claims limit the acrylic fiber to comprise an acrylic copolymer of 60-99 parts by weight (pbw) of copolymer (I) and 1-40 pbw of copolymer (II). The Kuroda composition described above is equivalent to the acrylic composition of copolymer (I). While Kuroda fails to teach a mixture of said copolymer (I) with a second acrylic copolymer, claims 3, 5, and 7 are also rejected over the Kuroda and Tokumoto references. Specifically, applicant's second copolymer composition, acrylic copolymer (II), is limited to (a) 0-90 wt.% of acrylonitrile, (b) 0-80 wt%. of a vinyl monomer, and (c) 2-40 wt.% of a sulfonic acid group-containing monomer. Copolymer (II) has the same three components as copolymer (I), but said components are limited to different amounts. Hence, there does not appear to be a patentable distinction between the final products of an acrylic fiber made from the copolymer (I)

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alone, made from copolymer (II) alone, or made from the combination of copolymers (I) and (II). Also, note that the amounts for components (a) and (b) of copolymer (II) and for component (c) of copolymer (I) include zero (i.e., said components are not required to be present in the copolymers). Therefore, claims 3, 5, and 7 are also rejected as being obvious over the cited prior art.

Conclusion

7. The art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Juska whose telephone number is 571-272-1477. The examiner can normally be reached on Monday-Friday 10am-6pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cheryl Juska/
Primary Examiner
Art Unit 1794

cj
September 19, 2008